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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,792	01/28/2004	Edwin C. Weldon	000894 USA C02/ISM/HDP/CV	7286
7590 11/03/2005			EXAMINER DANG, ROBERT TRONG	
PATENT COUNSEL Legal Affairs Department Applied Materials, Inc. P.O. Box 450A Santa Clara, CA 95052			ART UNIT 2838 PAPER NUMBER	
DATE MAILED: 11/03/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/767,792	Applicant(s) WELDON ET AL.	
	Examiner Robert T. Dang	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01/28/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Weldon (6108189).

As to claim 1, Weldon discloses in figure 2, an electrostatic chuck (100) comprising: (a) a dielectric member (115) comprising: (i) a first layer comprising a semiconductive material; and (ii) a second layer over the first layer, the second layer comprising an insulative material; and (b) an electrode (110) in the dielectric member (see col. 23, lines 20-38).

As to claim 2, Weldon discloses an electrostatic chuck (100) wherein the first layer comprises a resistivity of from about (5.times.10.sup.9 .OMEGA.cm) to about 8.times.10.sup.10 .OMEGA.cm (see col. 21, line 65 & col. 23, lines 35-40).

As to claim 3, Weldon discloses an electrostatic chuck (100) wherein the second layer comprises a resistivity of at least about (1.times.10.sup.11 .OMEGA.cm) (see col. 23, lines 5-6).

As to claim 4, Weldon discloses an electrostatic chuck wherein the second layer comprises a resistivity of from about 1×10^{11} to about 1×10^{20} $\Omega \cdot \text{cm}$ (see col. 9, lines 31-34)

As to claims 5 and 14, Weldon discloses an electrostatic chuck wherein the first layer comprises Al_2O_3 . (see col. 23, lines 20-38)

As to claims 6 and 15, Weldon discloses an electrostatic chuck wherein the first layer comprises TiO_2 . (see col. 23, lines 24-30)

As to claim 7, Weldon discloses an electrostatic chuck wherein the first layer comprises AlN . (see col. 21, line 23).

As to claims 8 and 16, Weldon discloses an electrostatic chuck wherein the electrode (80) is embedded in the first layer of the dielectric member (see fig. 2 & col. 23, lines 40-51).

As to claim 9, Weldon discloses an electrostatic chuck wherein the second layer comprises AlN . (see col. 9, line 25).

As to claims 10 and 17-18, Weldon discloses an electrostatic chuck wherein the second layer comprises SiO_2 or ZrO_2 . (see col. 23, lines 24-30).

As to claim 11, Weldon discloses an electrostatic chuck wherein the second layer comprises polyimide or Teflon[®]. (see col. 23, lines 24-30).

As to claim 12, Weldon discloses an electrostatic chuck (100) wherein the dielectric member is fabricated by sintering ceramic powders (see col. 23, lines 40-44)

As to claim 13, Weldon discloses in figure 2, an electrostatic chuck (100) comprising: (a) a dielectric member (115) comprising: (i) a first layer comprising a

Art Unit: 2838

semiconductive material; and (ii) a second layer over the first layer, the second layer comprising an insulative material (see col. 23, lines 23-25); and (b) an electrode (110) in the dielectric member (see col. 23, lines 20-38). Weldon also discloses an electrostatic chuck (100) wherein the first layer comprises a resistivity of from about $(5 \times 10^9 \text{ } \Omega \cdot \text{cm})$ to about $(8 \times 10^{10} \text{ } \Omega \cdot \text{cm})$ (see col. 21, line 65) and the second layer comprising a resistivity of from about $(1 \times 10^{11} \text{ } \Omega \cdot \text{cm})$ to about $(1 \times 10^{20} \text{ } \Omega \cdot \text{cm})$ (see col. 23, lines 5-6)

As to claim 19, Weldon discloses in figure 1, an electrostatic chuck (100) comprising: (a) a dielectric member (115) comprising: (i) a first semiconductive layer having a resistivity that is sufficiently low to provide (i) a charging time of less than about 3 seconds, and (ii) allow accumulated electrostatic charge to substantially dissipate in less than about 1 second (see col. 20, lines 35-46); and (ii) a second insulative layer over the first semiconductive layer, the second insulative layer having a resistivity higher than the first semiconductive layer (see col. 22, lines 65-68); and (b) an electrode (110) in the dielectric member.

As to claim 20, Weldon discloses an electrostatic chuck (100) wherein the first layer comprises a resistivity of from about $(5 \times 10^9 \text{ } \Omega \cdot \text{cm})$ to about $(8 \times 10^{10} \text{ } \Omega \cdot \text{cm})$ (see col. 21, line 65).

As to claim 21, Weldon discloses an electrostatic chuck (100) wherein the second layer comprises a resistivity of at least about $(1 \times 10^{11} \text{ } \Omega \cdot \text{cm})$ (see col. 23, lines 5-6).

As to claim 22, Weldon discloses an electrostatic chuck wherein the first layer comprises Al.sub.2O.sub.3. (see col. 23, lines 20-38).

As to claim 23, Weldon discloses an electrostatic chuck wherein the electrode (80) is embedded in the first layer of the dielectric member (see figure 2 & col. 23, lines 40-51).

As to claims 24-25, Weldon discloses an electrostatic chuck wherein the second layer comprises SiO.sub.2 or ZrO.sub.2. (see col. 23, lines 24-30).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert T. Dang whose telephone number is 571-272-8326. The examiner can normally be reached on M-F, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KARL D. EASTHOM
PRIMARY EXAMINER